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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 666-1 (1972): Jig Bushes, Part I: Headed and Headless
Jig Bushes [PGD 2: Machine Tool Elements and Holding
Devices]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaranay Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”



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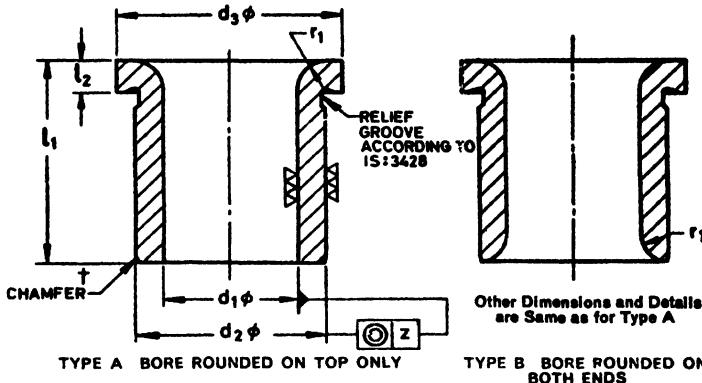
Indian Standard

REAFFIRMED

2002

SPECIFICATION FOR JIG BUSHES**PART I HEADED AND HEADLESS JIG BUSHES***(Second Revision)*

1. Scope — Dimensions and requirements for commonly used types of headed and headless types of jig bushes (long and short).

2. Dimensions**2.1 Dimensions for Headed Jig Bushes**

d, ^a F7		l ₁		l ₂		d ₁	d ₂	r ₁	z
Over	Up to	Short	Long			n6			
—	1					3	6		
1	1.8	6	9	2		4	7	1.2	
1.8	2.6					5	8		
2.6	3.3					6	10		
3.3	4	8	12	2.5		7	11	1.6	
4	5					8	12		
5	6	10	16	3		10	14		2
6	8					12	16		
8	10	12	20	4		15	19		2.5
10	12					18	22		0.02
12	15	16	28	4		22	26		
15	18					26	30		
18	22	20	36	5		30	35		
22	26					35	40		
26	30					42	47		
30	35	25	45	5		48	55		
35	42					55	62		
42	48	30	56	6		62	69		
48	55					70	77		
55	63	35	72	6		78	85		0.04

Note — Dimensional deviation for untoleranced dimensions:
Medium class according to IS : 2102-1969

*See also 3.

†Suitable chamber to guide in the bushes.

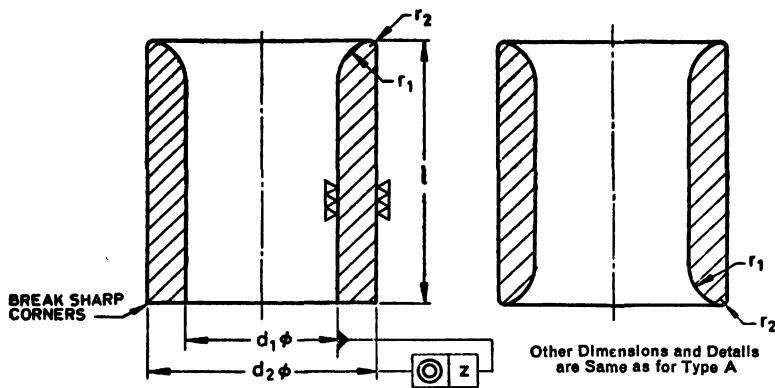
Adopted 19 January 1972

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2.1.1 Designation — A headed jig bush of type A with bore $d_1 = 12$ F7 and length $l_1 = 20$ shall be designated as:

Jig Bush A 12 × 20 IS : 666 (Part I)

2.2 Dimensions for Headless Jig Bushes



TYPE C BORE ROUNDED ON TOP ONLY

TYPE D BORE ROUNDED ON BOTH ENDS

All dimensions in millimetres.

d_1^* F7		l		d_2 n6	r_1	r_2	z
Over	Up to	Short	Long				
—	1			3			
1	1.8	6	9	4		0.2	
1.8	2.6			5			
2.6	3.3			6		0.3	
3.3	4	8	12	7	1.6		0.005
4	5			8		0.4	
5	6			10			
6	8	10	16	12		0.6	
8	10			15			
10	12	12	20	18	2.5	0.8	0.01
12	15			22			
15	18	16	28	26	4		
18	22			30			
22	26	20	36	35			
26	30			42			
30	35			48			
35	42	25	45	55			
42	48			62			
48	55	30	56	70			
55	63	36	72	78			

Note — Dimensional deviation for untoleranced dimensions:
Medium class according to IS : 2102-1969
*See also 3.

2.2.1 Designation — A headless jig bush of type D with bore $d_1 = 12$ F7 and length $l = 20$ shall be designated as:

Jig Bush D 12 × 20 IS : 666 (Part I)

3. Tolerances

3.1 The tolerances F7 on the bore d_1 applies for twist drills. In special cases tolerance zone G7 or E8 may also be used; this shall be specially indicated while ordering, for example, a headed jig bush of type A, having bore $d_1 = 22$ G7 and length $l_1 = 36$ shall be designated as:

Jig Bush A 22 G7 × 36 IS : 666 (Part I)

3.2 The recommended tolerance on the hole in the jig plate is H6 or H7. When a jig bush is to be inserted into a hole in jig which has previously held a jig bush it is necessary to specify tolerance zone p6 on outside diameter d_2 so that a tight fit is ensured. Jig bush for this purpose are to be specified as such while ordering, for example, a headed jig bush of type A having outside diameter $d_2 = 30$ p6, bore $d_1 = 22$ and length $l_1 = 36$ shall be designated as:

Jig Bush A 30 p6 × 22 × 36 IS : 666 (Part I)

3.3 For jig bushes meant for reaming, the tolerance on bore diameter shall be specified by the purchaser.

4. Material — Suitable hardenable steel with a tensile strength of 60 kgf/mm², Min.

5. Hardness — 740 to 820 HV (62 to 65 HRC).

Note — Hardness conversion values specified are approximate.

6. Marking — The headed and headless jig bushes shall be marked with the size and tolerance class of the bore.

6.1 Certification Marking — Details available with the Bureau of Indian Standards.

E X P L A N A T O R Y N O T E

This standard was first published in 1963, covering the requirements for slip bushes in addition to the two types of jig bushes given in 2.1 and 2.2 of this standard. With the advancement of new technical knowledge in the working of jig bushes, it has been decided to standardize slip bushes with locking arrangement. The standard on jig bushes is now issued in the following two :

Part I Headed and headless jig bushes, and

Part II Renewable and drill bushes.